

REMARKS/ARGUMENTS

1. In the above referenced Office Action, the Examiner rejected claim 1 under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which application regards as the invention. The Examiner further rejected claims 1-46 under 35 USC § 101 because the claimed invention is directed to non-statutory subject matter. The Examiner also rejected claims 1-4, 6, 9, 10, 12-15, 17-19, 21, 24, 26, 27, 29, 31-33, 35, 38, 40-43, 45, and 46 under 35 USC § 103 (a) as being unpatentable over Yokozawa (U.S. Patent No. 5,420,739) in view of Allen (U.S. Patent No. 4,442,540) and claims 8, 11, 16, 23, 25, 30, 37, 39, and 44 under 35 USC § 103 (a) as being unpatentable over Yokozawa (U.S. Patent No. 5,420,739) in view of Allen (U.S. Patent No. 4,442,540) and Barclay (U.S. Patent 6,850,555). The rejections have been traversed and, as such, the applicant respectfully requests reconsideration of the allowability of claims 1-46.

2. Claim 1 has been rejected under 35 USC § 112, second paragraph. The applicant respectfully disagrees with this rejection and the reasoning thereof.

Claim 1 claims a device for processing content data, the device comprises:

data processing circuitry operably coupled to process data received from an external content display device to produce presentation information;

content processing module operably coupled to process content data for presentation on the external content display device based on the presentation information; and

transceiving module operably coupled to the data processing circuitry and the content processing module, wherein the transceiving module separates modulated data from the content data, wherein the transceiving module retrieves the data from the modulated data, and wherein the transceiving module introduces the

content data into a channel coupling the device to the external content display device. [emphasis added]

In claim 1, the data processing circuitry processes "data", which the transceiving module retrieves from the modulated data. Accordingly, claim 1 includes clear antecedent basis for "data", and further makes it clear that "the data" is being retrieved from the modulated data and is different than "the content data". Thus, the applicant believes that this rejection should be withdrawn.

3. Claims 1-46 have been rejected under 35 USC § 101 because the claimed invention is directed to non-statutory subject matter. The Examiner supports this rejection by stating, in part, that the claimed invention, when considered as a whole, are directed to nothing more than a software program stored on a memory that is executed on a processor. Thus the claims cover a judicial exception of an abstract idea in the form of software. The applicant respectfully disagrees with this rejection and the reasoning thereof.

MPEP 2106 (IV)(A), in part, states:

As the Supreme Court has recognized, Congress chose the expansive language of 35 U.S.C. 101 so as to include "anything under the sun that is made by man" as statutory subject matter.

This perspective has been embraced by the Federal Circuit:
The plain and unambiguous meaning of section 101 is that any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may be patented if it meets the requirements for patentability set forth in Title 35, such as those found in sections 102, 103, and 112. The use of the expansive term "any" in section 101 represents Congress's intent not to place any restrictions on the subject matter for which a patent may be obtained beyond those specifically recited in section 101 and the other parts of Title 35.... Thus, it is improper to read into section 101

limitations as to the subject matter that may be patented where the legislative history does not indicate that Congress clearly intended such limitations.

35 U.S.C. 101 defines four categories of inventions that Congress deemed to be the appropriate subject matter of a patent: processes, machines, manufactures and compositions of matter. The latter three categories define "things" or "products" while the first category defines "actions" (i.e., inventions that consist of a series of steps or acts to be performed). See 35 U.S.C. 100(b) ("The term 'process' means process, art, or method, and includes a new use of a known process, machine, manufacture, composition of matter, or material.").

Federal courts have held that 35 U.S.C. 101 does have certain limits. First, the phrase "anything under the sun that is made by man" is limited by the text of 35 U.S.C. 101, meaning that one may only patent something that is a machine, manufacture, composition of matter or a process. See, e.g., *Alappat*, 33 F.3d at 1542, 31 USPQ2d at 1556; *Warmerdam*, 33 F.3d at 1358, 31 USPQ2d at 1757 (Fed. Cir. 1994). Second, 35 U.S.C. 101 requires that the subject matter sought to be patented be a "new and useful" invention. Accordingly, a complete definition of the scope of 35 U.S.C. 101, reflecting Congressional intent, is that any new and useful process, machine, manufacture or composition of matter under the sun that is made by man is the proper subject matter of a patent.

The subject matter courts have found to be outside of, or exceptions to, the four statutory categories of invention is limited to abstract ideas, laws of nature and natural phenomena. While this is easily stated, determining whether an applicant is seeking to patent an abstract idea, a law of nature or a natural phenomenon has proven to be challenging. These three exclusions recognize that subject matter that is not a practical application or use of an idea, a law of nature or a natural phenomenon is not patentable. See, e.g., *Rubber-Tip Pencil Co. v. Howard*, 87 U.S. (20 Wall.) 498, 507 (1874) ("idea of itself is not patentable, but a new device by which it may be made practically useful is"); *Mackay Radio & Telegraph Co. v. Radio Corp. of America*, 306 U.S. 86, 94, 40 USPQ 199, 202 (1939) ("While a scientific truth, or the mathematical expression of it, is not patentable invention, a novel and useful structure created with the aid of knowledge of scientific truth may be."); *Warmerdam*, 33 F.3d at 1360, 31 USPQ2d at 1759 ("steps of 'locating' a medial axis, and 'creating' a bubble hierarchy . . . describe nothing more than the manipulation of basic mathematical constructs, the paradigmatic 'abstract idea'").

MPEP 2106 (IV)(B), in part, states:

In many instances it is clear within which of the enumerated categories a claimed invention falls. Even if the characterization of the claimed invention is not clear, this is usually not an issue that will preclude making an accurate and correct assessment with respect to the section 101 analysis. The scope of 35 U.S.C. 101 is the same regardless of the form or category of invention in which a particular claim is drafted. *A1&I*, 172 F.3d at 1357, 50 USPQ2d at 1451. See also *State Street*, 149 F.3d at 1375, 47 USPQ2d at 1602 wherein the Federal Circuit explained:

The question of whether a claim encompasses statutory subject matter should not focus on which of the four categories of subject matter a claim is directed to -- process, machine, manufacture, or composition of matter -- [provided the subject matter falls into at least one category of statutory subject matter] but rather on the essential characteristics of the subject matter, in particular, its practical utility.

For example, a claimed invention may be a combination of devices that appear to be directed to a machine and one or more steps of the functions performed by the machine. Such instances of mixed attributes, although potentially confusing as to which category of patentable subject matter the claim belongs, does not affect the analysis to be performed by USPTO personnel. Note that an apparatus claim with process steps is not classified as a "hybrid" claim; instead, it is simply an apparatus claim including functional limitations.

MPEP 2106 (IV)(B)(2), in part, states:

A claimed invention is directed to a practical application of a 35 U.S.C. 101 judicial exception when it:

- (A) "transforms" an article or physical object to a different state or thing; or
- (B) otherwise produces a useful, concrete and tangible result, based on the factors discussed below.

From the foregoing excerpts of the MPEP, it is clear that claims 1-46 are claiming statutory subject matter of a process via the method claims and a machine via the device claims. The invention, as claimed, does not fall into the judicially created exceptions of an abstract idea, a law of nature, or a natural phenomenon. The claimed invention provides a new and useful process and machine. Thus, the present rejection should be withdrawn.

4. Claims 1-4, 6, 9, 10, 12-15, 17-19, 21, 24, 26, 27, 29, 31-33, 35, 38, 40-43, 45, and 46 have been rejected under 35 USC § 103 (a) as being unpatentable over Yokozawa (U.S. Patent No. 5,420,739) in view of Allen (U.S. Patent No. 4,442,540). The applicant respectfully disagrees with this rejection and the reasoning thereof.

The Examiner has repeated this rejection from the office action mailed on 11/8/05 and the applicant reasserts the arguments presented in the response to the 11/8/05 office action. Such arguments are attached in an appendix to this response. In furtherance of his position, the applicant provides the following additional arguments.

The Examiner has equated the earphones 110 to the data processing circuitry of the claimed invention; has equated the remote control device 214 to the external content display device; and has equated the content processing module to the main unit 210. As shown in figures 2-4 of the present patent application, the content processing module, the transceiving module, and the data processing circuitry are within the content processing device, which is coupled via a channel to a content display device. As taught in the specification on page 5, lines 20-24:

The content processing device 32 may be any device that produces audio data, video data, text data, multi-media data, and/or a combination thereof for presentation to a user. The content display device 34 may be a headphone, LCD panel, plasma display, speakers, and/or any device that allows for audio data, video data, text data, multi-media data, and/or a combination thereof to be presented to a user.

From the foregoing, it is clear that equating components (e.g., the data processing circuitry) of the content processing device to an example of the content display device (e.g., earphones) is in error. Accordingly, 1-4, 6, 9, 10, 12-15, 17-19, 21, 24, 26, 27, 29, 31-33, 35, 38, 40-43, 45, and 46 overcome the present rejection.

5. Claims 8, 11, 16, 23, 25, 30, 37, 39, and 44 under 35 USC § 103 (a) as being unpatentable over Yokozawa (U.S. Patent No. 5,420,739) in view of Allen (U.S. Patent No. 4,442,540) and Barclay (U.S. Patent 6,850,555).

These claims are dependent upon one of independent claims 1, 14, 19, 28, 33, and 42, which have been shown to overcome their respective rejection. The applicant believes that the reasons that distinguish claims 1, 14, 19, 28, 33, and 42 over the cited prior art are applicable in distinguishing claims 8, 11, 16, 23, 25, 30, 37, 39, and 44 over the present rejection.

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For the foregoing reasons, the applicant believes that claims 1-46 are in condition for allowance and respectfully request that they be passed to allowance.

The Examiner is invited to contact the undersigned by telephone or facsimile if the Examiner believes that such a communication would advance the prosecution of the present invention.

RESPECTFULLY SUBMITTED,

By: /Timothy W. Markison reg. 33,534/

Timothy W. Markison

Phone: (808) 665-1725

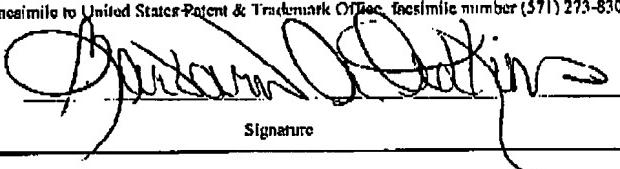
Fax No. (808) 665-1728

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Appendix of Previous Argument

Claim 1 claims a device for processing content data that includes data processing circuitry, a content processing module, and a transceiving module. The data processing circuitry is operably coupled to process data received from an external content display device to produce presentation information. The content processing module is operably coupled to process content data for presentation on the external content display device based on the presentation information. The transceiving module is operably coupled to the data processing circuitry and the content processing module, wherein the transceiving module separates modulated data from the content data, wherein the transceiving module retrieves the data from the modulated data, and wherein the transceiving module introduces the content data into a channel coupling the device to the external content display device. [emphasis added]

Yokozawa teaches at column 4, lines 39-49, that:

FIG. 1 a portable audio device, shown generally at 200, such as a CD player or tape recorder, has a main unit 210 containing electrical and mechanical components (not shown) for playing tapes or CDs. A remote control unit 214 controls main unit 210. An audio/control cable 215 feeds control signals from remote control unit 214 to main unit 210. Audio signals from main unit 210 are fed through audio/control cable 215, through remote control unit 214, to an earphone set 110. Earphone set 110 is connectable to, and disconnectable from, remote control unit 214 by a first plug 23. [emphasis added]

As such, Yokozawa is teaching a portable audio device that includes three components: the remote control unit 214, the main unit 210, and the earphone set 110, where the remote control unit provides controls signals to the main unit and where the earphone set receives audio signals from the main unit. Yokozawa does not, however, teach or suggest processing data received from an external content display device to produce presentation information and processing content data for presentation on the external content display device based on the presentation information as is claimed in claim 1.

Allen teaches, at column 3, lines 26-42, that:

FIG. 1 discloses the speech interpolation apparatus of this invention in block diagram form. The apparatus comprises an analog-to-digital (A/D) converter 1 for changing the speech signal from analog to digital form; buffers 2 and 6 for holding the digital speech and data signals, respectively; processor 5 for generating control signals in response to both speech and data signals; modem 7 for modulating the data signal above the speech signal; time-varying complementary high-pass, low-pass (HP-LP) filter 3 for operating in response to control signals from processor 5 on speech and data signals, respectively, from buffer 2 and modem 7; and digital-to-analog (D/A) converter 4 for changing the digital speech and data signals into analog form with the speech signal in a lower segment of the channel bandwidth and with the data signal in an upper segment thereof. [emphasis added]

Allen further teaches, at column 4, lines 23-29, that:

This invention can be characterized as a variable frequency interpolation system in which not only silent intervals in the time domain are used to advantage but also where the speech signal occupies less than full bandwidth in the frequency domain data are inserted into momentarily unused and expandable frequency space above that needed for the speech signal alone. [emphasis added]

As such, Allen is teaching a system for limiting the bandwidth of speech signals and determining silent intervals of the speech signals to insert data signals. Allan does not, however, teach separating modulated data from the content data, retrieving the data from the modulated data, and introducing the content data into a channel coupling the device to the external content display device as is claimed in claim 1.

Thus, combining the teachings of Yokozawa (i.e., a portable audio device that includes three components: the remote control unit 214, the main unit 210, and the earphone set 110, where the remote control unit provides controls signals to the main unit and where the earphone set receives audio signals from the main unit) with the teachings of Allen (i.e., a system for limiting the bandwidth of speech signals and determining silent intervals of the speech signals to insert data signals) does not render claim 1 obvious.

Claims 2-4, 6, 9, and 10 are dependent upon claim 1 and introduce additional patentable subject matter. The applicant believes that the reasons that distinguish claim 1 over the present rejection are applicable in distinguishing claims 2-4, 6, 9, and 10 over the same rejection.

Claim 14 claims a device for processing content data that includes data processing circuitry, a content processing module, and a transceiving module. The data processing circuitry is operably coupled to provide display data to an external content display device. The content processing module is operably coupled to process content data for presentation on the external content display device. The transceiving module is operably coupled to the data processing circuitry and the content processing module, wherein the transceiving module combines the display data and the content data to produce transmit data, wherein the transceiving module provides the transmit data to the external content display device via a channel coupling the device to the external content display device.

The combined the teachings of Yokozawa (i.e., a portable audio device that includes three components: the remote control unit 214, the main unit 210, and the earphone set 110, where the remote control unit provides controls signals to the main unit and where the earphone set receives audio signals from the main unit) and Allen (i.e., a system for limiting the bandwidth of speech signals and determining silent intervals of the speech signals to insert data signals) does not render claim 14 obvious.

Claims 15 and 17 are dependent upon claim 14 and introduce additional patentable subject matter. The applicant believes that the reasons that distinguish claim 14 over the present rejection are applicable in distinguishing claims 15 and 17 over the same rejection.

Claim 19 claims a method for processing content data that includes: receiving modulated data via a channel coupled to an external content display device; introducing the content data into the channel coupling the device to the external content display device; separating the modulated data from the content data; retrieving data from the

modulated data; processing the data to produce presentation information; and processing content data for presentation on the external content display device based on the presentation information.

The combined the teachings of Yokozawa (i.e., a portable audio device that includes three components: the remote control unit 214, the main unit 210, and the earphone set 110, where the remote control unit provides controls signals to the main unit and where the earphone set receives audio signals from the main unit) and Allen (i.e., a system for limiting the bandwidth of speech signals and determining silent intervals of the speech signals to insert data signals) does not render claim 19 obvious.

Claims 21, 24, and 26 are dependent upon claim 19 and introduce additional patentable subject matter. The applicant believes that the reasons that distinguish claim 19 over the present rejection are applicable in distinguishing claims 21, 24, and 26 over the same rejection.

Claim 28 claims a method for processing content data that includes: providing display data to an external content display device; processing content data for presentation on the external content display device; modulating the display data to produce modulated display data; combining the modulated display data and the content data to produce transmit data; and providing the transmit data to the external content display device via a channel coupling the device to the external content display device.

The combined the teachings of Yokozawa (i.e., a portable audio device that includes three components: the remote control unit 214, the main unit 210, and the earphone set 110, where the remote control unit provides controls signals to the main unit and where the earphone set receives audio signals from the main unit) and Allen (i.e., a system for limiting the bandwidth of speech signals and determining silent intervals of the speech signals to insert data signals) does not render claim 28 obvious.

Claims 29 and 31 are dependent upon claim 28 and introduce additional patentable subject matter. The applicant believes that the reasons that distinguish claim 28 over the present rejection are applicable in distinguishing claims 29 and 31 over the same rejection.

Claim 33 includes similar limitations as claim 19. As such, the applicant believes that the reasons that distinguish claim 19 over the present rejection are applicable in distinguishing claim 33 over the same rejection.

Claims 35, 38, and 40 are dependent upon claim 33 and introduce additional patentable subject matter. The applicant believes that the reasons that distinguish claim 33 over the present rejection are applicable in distinguishing claims 35, 38, and 40 over the same rejection.

Claim 42 includes similar limitations as claim 28. As such, the applicant believes that the reasons that distinguish claim 28 over the present rejection are applicable in distinguishing claim 42 over the same rejection.

Claims 43 and 45 are dependent upon claim 42 and introduce additional patentable subject matter. The applicant believes that the reasons that distinguish claim 42 over the present rejection are applicable in distinguishing claims 43 and 45 over the same rejection.